



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/518,526

02/02/2005

Hasse Sinivaara

60282.00226

6794

32294 7590 09/26/2007
SQUIRE, SANDERS & DEMPSEY L.L.P.
14TH FLOOR
8000 TOWERS CRESCENT
TYSONS CORNER, VA 22182

EXAMINER

LY, NGHI H

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

09/26/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/518,526

Applicant(s)

SINIVAARA, HASSE

Examiner

Nghii H. Ly

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-48 are rejected under 35 U.S.C. 102(e) as being anticipated by Awater et al (US 7,173,918).

Regarding claims 1, 14, 27, 43, 47 and 48, Awater teaches a method comprising receiving roaming support information by means of signaling from a subscriber terminal via an interface to a load control device being located externally to the subscriber terminal (see Title and Abstract), the roaming support information being determined on the basis of access point status information determined in a plurality of access points and communication status information related to the plurality of access points processing in the load control device (see column 2, lines 54-58, column 3, lines 5-14, column 9, lines 43-50, column 10, lines 33-39, column 12, lines 61-63 and column 13, lines 55-61), the roaming support information by an access point related load based roaming analysis, deciding on the basis of a result of the access point related load based roaming analysis, whether the subscriber terminal is to be associated with another one of the plurality of access points (see column 2, lines 54-58, column 3, lines

Art Unit: 2617

5-14, column 9, lines 43-50, column 10, lines 33-39, column 12, lines 61-63 and column 13, lines 55-61), and if so, sending a command to a serving access point associated with the subscriber terminal (see column 9, lines 1-10 and column 14, lines 5-25), the command instructing the serving access point to initialize roaming of the subscriber terminal to the another one of the plurality of access points (see column 8, lines 3-17, column 9, lines 43-50, column 10, lines 33-39, column 12, lines 61-63 and column 13, lines 55-61, also see column 9, lines 1-10 and column 14, lines 5-25).

Regarding claims 2, 15 and 28, Awater teaches the access point status information comprises an access point identification element and an access point load status indicator determined in a respective access point (see Abstract and column 3, lines 5-37).

Regarding claims 3, 16 and 29, Awater teaches in the step of determining communication status information on the basis of a received signal strength indicator indicating the received signal strength of the plurality of access (see column 7, lines 29-43 and column 8, lines 3-13).

Regarding claims 4, 17 and 30, Awater teaches in the step of determining, the communication status information on the basis of a carrier to interference ratio per each access point (see column 7, lines 29-43 and column 8, lines 3-13).

Regarding claims 5, 18 and 31, Awater teaches in the step of determining the communication status information on the basis of a terminal transmit power status (see column 7, lines 29-43 and column 8, lines 3-13).

Regarding claims 6, 19 and 32, Awater teaches the roaming support information,

Art Unit: 2617

obtained by processing the received access point status information and the communication status information (see column 3, lines 5-14, column 9, lines 43-50, column 10, lines 33-39 and column 13, lines 55-61), comprises statistics of access point related communication status and load information derived from the access point status information (see column 2, lines 54-58, column 9, lines 43-50, column 10, lines 33-39 and column 13, lines 55-61).

Regarding claims 7, 20 and 33, Awater teaches in the processing, in the load control device, the roaming support information by the access point related load based roaming analysis (see column 9, lines 43-50, column 10, lines 33-39, column 12, lines 61-63 and column 13, lines 55-61), comprises using of a hand-off algorithm to calculate load and connection quality situations for the plurality of access points on the basis of the roaming support information and to determine an optimal access point for being associated with the subscriber terminal (see Abstract, column 2, lines 54-58, column 9, lines 43-50, column 10, lines 33-39, column 12, lines 61-63 and column 13, lines 55-61).

Regarding claims 8, 13, 21, 26, 34 and 39, Awater teaches using of processing parameters the access point related load based roaming analysis and derived from the roaming support information (see column 9, lines 43-50, column 10, lines 33-39, column 12, lines 61-63 and column 13, lines 55-61), wherein the processing parameters are differently weighted in the access point related load based roaming analysis (see Abstract, column 2, lines 54-58, column 3, lines 5-14, column 10, lines 33-39, column 12, lines 61-63).

Art Unit: 2617

Regarding claims 9, 10, 22, 23, 35, 36 and 41, Awater teaches the load control device is located in at least one of the plurality of access points (see column 2, lines 54-58, column 10, lines 33-39, column 12, lines 61-63 and column 13, lines 55-61).

Regarding claims 11, 24, 37, 42 and 46, Awater teaches receiving, in the load control device in the network element access point internal monitoring information from the plurality of access points; determining (see column 3, lines 5-14, column 9, lines 43-50, column 10, lines 33-39 and column 12, lines 61-63), in the load control device, access points available for the subscriber terminal and selecting access point internal monitoring information of the available access points (see column 10, lines 33-39, column 12, lines 61-63 and column 13, lines 55-61), processing in the load control device, the roaming support information and the selected access point internal monitoring information by an enhanced access point related load based roaming analysis (see column 2, lines 54-58, column 3, lines 5-14, column 9, lines 43-50 and column 10, lines 33-39), and deciding, on the basis of a result of the enhanced access point related load based roaming analysis, whether the subscriber terminal is to be associated with another one of the plurality of access points (see column 2, lines 54-58, column 3, lines 5-14, column 12, lines 61-63 and column 13, lines 55-61), and if so, sending a command to a serving access point associated with the subscriber terminal (see column 9, lines 43-50, column 10, lines 33-39, column 12, lines 61-63 and column 13, lines 55-61), the command instructing the serving access point to initialize roaming of the subscriber terminal to the another one of the plurality of access points in the wireless communication network (see column 3, lines 5-14, column 9, lines 43-50,

Art Unit: 2617

column 10, lines 33-39, column 12, lines 61-63 and column 13, lines 55-61).

Regarding claims 12, 25 and 38, Awater teaches the access point internal monitoring information comprises at least one of a retransmit rate to associated subscriber terminals, back-off windows, and a net allocation vector for a respective one of the plurality of access points (see column 9, lines 43-50, column 10, lines 33-39, column 12, lines 61-63 and column 13, lines 55-61).

Regarding claim 40, Awater teaches an access point usable in a wireless communication network, being configured to control a wireless communication connection of at least one subscriber terminal and to exchange information with the at least one subscriber terminal (see column 2, lines 54-58, column 12, lines 61-63 and column 13, lines 55-61), wherein the access point comprises: access point load status monitoring means configured to measure a traffic load of an access point and to transmit access point status information (see column 3, lines 5-14, column 9, lines 43-50, column 10, lines 33-39, column 12, lines 61-63 and column 13, lines 55-61), and a load control device according to claim 27 (see column 2, lines 54-58, column 3, lines 5-14, column 9, lines 43-50, column 10, lines 33-39, column 12, lines 61-63 and column 13, lines 55-61).

Regarding claim 44, Awater teaches the computer program product comprises a medium readable by the data processing apparatus (see column 3, lines 5-14, column 9, lines 43-50, column 10, lines 33-39, column 12, lines 61-63 and column 13, lines 55-61), on which the software code portions are stored (see column 2, lines 54-58, column 9, lines 43-50, column 10, lines 33-39, column 12, lines 61-63 and column 13, lines 55-

Art Unit: 2617

61).

Regarding claim 45, Awater teaches the computer program product is directly loadable into an internal memory of the data processing apparatus (see column 3, lines 5-14, column 9, lines 43-50, column 10, lines 33-39, column 12, lines 61-63 and column 13, lines 55-61).

Response to Arguments

3. Applicant's arguments with respect to claims 1-48 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2617

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi H. Ly whose telephone number is (571) 272-7911. The examiner can normally be reached on 9:30am-8:00pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nghi H. Ly

